REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith. The present Amendment is being made to facilitate prosecution of the application.

I.   STATUS OF THE CLAIMS AND FORMAL MATTERS

Pending claims 1-5, 7 and 8 are hereby amended. Claim 1 is independent. Claim 6 is hereby canceled without prejudice or disclaimer of subject matter, since features of claim 6 have been incorporated into claim 1. No new matter has been introduced by this amendment. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which the Applicants are entitled. The amendments to the claims herein obviate the objections raised by the Office Action.

II.   REJECTIONS UNDER 35 U.S.C. § 102(e)

Claims 1 and 4(1) were rejected under 35 U.S.C. §102(e) as allegedly anticipated by U.S. Patent No. 6,397,179 to Crespo et al.

III.   REJECTIONS UNDER 35 U.S.C. § 103(a)

Claims 2, 3, 4(2) and 4(3) were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 6,397,179 to Crespo et al. in view of U.S. Patent No. 5,566,272 to Brems et al.

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IV.   RESPONSE TO REJECTIONS

One advantage of the claimed invention is that the thorough estimation (second processing step) need not be performed in case of a rejection after the rough estimation (first processing step). Thus, processing time can be reduced.

As understood by Applicants, US 6,397,179 to Crespo et al. (hereinafter, merely "Crespo") relates to a system and method for continuous speech recognition. A received utterance is subjected to a continuous speech recognizer (CSR) and an N-best word sequence is output by the CSR component. The N-best word sequence is then input into a natural language understanding (NLU) component for extracting the meaning of the utterance. The N-best word sequence is computed based on "local scores" (see Crespo, column 2, lines 56 to 67). The term "local score", as used by Crespo, refers to likelihoods (see Crespo, column 2 line 64).

Applicants submit, however, that determining likelihoods is different than computing confidence measures (in this context, Applicants note item 5 of the Office Action). Likelihoods are used in speech recognition to choose one among several hypotheses. After one hypothesis has been selected, confidence measures may be calculated in order to provide a probability for the correctness of the recognition result, i.e. for the selected hypothesis.

Therefore, contrary to Crespo, the claimed invention relates to a method for recognizing speech wherein a received utterance is to be evaluated by using confidence measures. Furthermore, a received utterance is subjected to a recognition process in its entirety, wherein a rough estimation is made on whether or not said received utterance is accepted or rejected in its entirety. This rough estimation can be considered as a first processing step,

wherein, in a preferred embodiment, a simple confidence measure is determined for the entire received utterance. In case said utterance is accepted, said utterance is thoroughly reanalyzed in order to extract its meaning and/or intention. Further, based on the reanalysis, keywords and/or key-phrases are extracted from the utterance essentially being representative for its meaning. The reanalyzing step corresponds to a second processing step, potentially requiring a high amount of computational processing time.

One aspect of the claimed invention is therefore to perform a first processing step for the entire utterance in order for an efficient decision on acceptance/rejection of the entire received utterance. This first processing step requires, thus, only minimal processing time. Then, a second processing step is performed, wherein keywords and/or key-phrases are extracted from the utterance. Within that second processing step, a thorough estimation on accepting/rejecting said key-phrases and/or keywords is performed, as recited in the claims.

As understood by Applicants, it appears that the Office Action deems the above-mentioned first processing step relating to said rough estimation to be disclosed (see column 1, lines 27-36 of Crespo). Applicants respectfully traverse. Applicants submit that the cited passages and figure relied upon in Crespo relate to a standard usage of confidence measures.

Applicants submit that Crespo fails to teach or suggest how confidence measures are determined. In particular, Crespo fails to teach or suggest performing a rough estimation and a thorough estimation, as recited in claim 1.

Further, in prior art systems as in Crespo, it is necessary to perform the thorough estimation for all words being rejected by key words and/or key phrases, and the thorough

estimation is only performed for these key words and/or key phrases and not for the entire sentence/phrase, thereby saving processing time.

As shown above, claim 1 is hereby amended to include the above-explained "rough estimation" and the above-mentioned "thorough estimation" relating to the above-mentioned first and second processing step.

Thus, Applicants respectfully submit that claim 1 is patentable because Crespo fails to teach or suggest a rough estimation and a thorough estimation, as recited in claim 1.

V.   DEPENDENT CLAIMS

The other claims are each dependent from independent claim one and are therefore believed patentable for at least the above-identified reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.
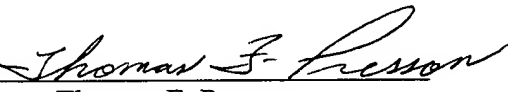
CONCLUSION

In the event the Examiner disagrees with any of the statements appearing above with respect to the disclosures in the cited reference, it is respectfully requested that the Examiner specifically indicate the portion, or portions, of the reference providing the basis for a contrary view.

Applicants submit that this Amendment places the application in condition for allowance and respectfully request early passage to issue of the present application.

Please charge any fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

Respectfully submitted,
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